CLAIMS

1. A shoe outsole, the outsole comprising:

a bottom surface of the shoe outsole;

an adhesive applied to at least a portion of the bottom surface of the shoe outsole; and

a plurality of fibers electro-statically embedded within the adhesive.

2. The shoe outsole of claim 1 wherein the shoe outsole is made from a fiber reinforced composite material.

3. The shoe outsole of claim 1 wherein the shoe outsole is made from a material such as polyvinyl chloride, thermoplastic resin, ethylene vinyl acetate, or rubber.

4. The shoe outsole of claim 1 wherein at least a portion of the bottom surface of the shoe outsole is masked off before the adhesive is applied thus to prevent any fibers from attaching to the masked-off portion.

5. The shoe outsole of claim 1 wherein the at least a portion of the bottom surface of the shoe outsole is configured with a plurality of protuberances and depressions forming ridges or a ribbed surface thereon to give the shoe a more aggressive tread.

6. The shoe outsole of claim 1 wherein the plurality of fibers are comprised of textile material.

7. The shoe outsole of claim 1 wherein the length of the fibers is in the range of 0.2 to 1.0 millimeters.

8. The shoe outsole of claim 1 wherein the plurality of fibers attached to the adhesive are angled such that the fibers are substantially normal to the bottom surface of the shoe outsole.

9. The shoe outsole of claim 1, further comprising at least a portion of the bottom surface of the shoe outsole being configured to be a heel of a shoe.

10. A shoe, the shoe comprising:

a shoe outsole having an upper surface and a bottom surface wherein the upper surface is connected to a shoe upper;

an adhesive applied to at least a portion of the bottom surface of the shoe outsole; and

a plurality of fibers electro-statically embedded within the adhesive.

11. The shoe of claim 10 wherein the shoe outsole is made from a fiber reinforced composite material.

12. The shoe outsole of claim 10 wherein the shoe outsole is made from a material such as polyvinyl chloride, thermoplastic resin, ethylene vinyl acetate, or rubber.

13. The shoe of claim 10 wherein at least a portion of the bottom surface of the shoe outsole is masked off before the adhesive is applied thus to prevent any fibers from attaching to the masked-off portion to give the shoe a more aggressive tread.

14. The shoe of claim 10 wherein at least a portion of the bottom surface of the shoe outsole is configured with a plurality of protuberances and depressions forming ridges or a ribbed surface thereon.

15. The shoe of claim 10 wherein the plurality of fibers are made from textile materials.

16. The shoe of claim 10 wherein the size, diameter, or color of the fibers are selected depending on the coverage and look desired.

17. The shoe outsole of claim 10 wherein the length of the fibers is in the range of 0.2 to 1.0 millimeters.

18. The shoe of claim 10 wherein the plurality of fibers attached to the adhesive are angled such that the fibers are substantially normal to the bottom surface of the shoe outsole.

19. The shoe of claim 10, further comprising at least a portion of the bottom surface of the shoe outsole being configured to be a heel of a shoe.

20. A method for applying fibers to a shoe outsole, the method comprising:

applying an adhesive to a first region of a bottom surface of the shoe outsole;

placing the shoe outsole on top of a support plate, the bottom surface facing upward;

providing for the support plate and a screen to be in vertical proximity of one another;

creating an electro-static field in a region above the support plate;

drawing a plurality of fibers through the screen wherein the fibers are charged and gravitationally drawn toward the support plate due to the electro-static field region, the fibers continuing downward through the electro-static field region until at least some of the fibers become embedded into the adhesive;

removing the support plate with the shoe outsole; and

curing the adhesive with the embedded fibers therein.

21. The method of claim 20 wherein a second region of the bottom surface of the shoe outsole is masked off before applying the adhesive.

22. The method of claim 20 further comprising a sifting device located above the screen wherein the electric field region is created between the screen and the support plate and the fibers are sifted downward toward the screen.

23. The method of claim 22 wherein power is supplied to the screen before the support plate is placed under the conductive screen.

24. The method of claim 22 wherein the fibers are electro-statically charged as they pass through the screen and thereafter become substantially aligned with the electro-static field.

25. The method of claim 22, further comprising a sifting motor coupled to the sifting device for actuation thereof.

26. The method of claim 20, further comprising an insulated cover plate for manipulating the screen, the screen powered as to create the electric-static field region between the screen and the support plate.

27. The method of claim 20 wherein the fibers, upon impact with the adhesive, are substantially normal to the first region of the bottom surface of the shoe outsole.

28. The method of claim 20 wherein the curing of the adhesive is accomplished by placing the support plate with the shoe outsole into an oven.

29. The method of claim 20, further comprising the support plate having a plurality of rollers for moving the support plate under the screen.

30. The method of claim 20 wherein the fibers are comprised of textile material.

31. A fiber transfer means for attaching fibers to a shoe outsole, the fiber transfer means comprising:

a charging means for electro-statically charging the fibers, the charging means being electrically powered;

a sifting means for negotiating the fibers into an electro-static field region; and

a support means for supporting the outsole and for creating the electro-static field region between the charging means and the support means.

32. The fiber transfer means of claim 31 wherein the support means is moveably located underneath the charging means during a fiber application process.

33. The fiber transfer means of claim 31 wherein the sifting means is connected to the charging means.

34. The fiber transfer means of claim 31 wherein the charging means is located beneath the sifting means, the charging means configured with a plurality of perforations.